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GB 2225038 A GB 1445843 A GB 0581915 A  
GB 0573069 A US 3877681 A

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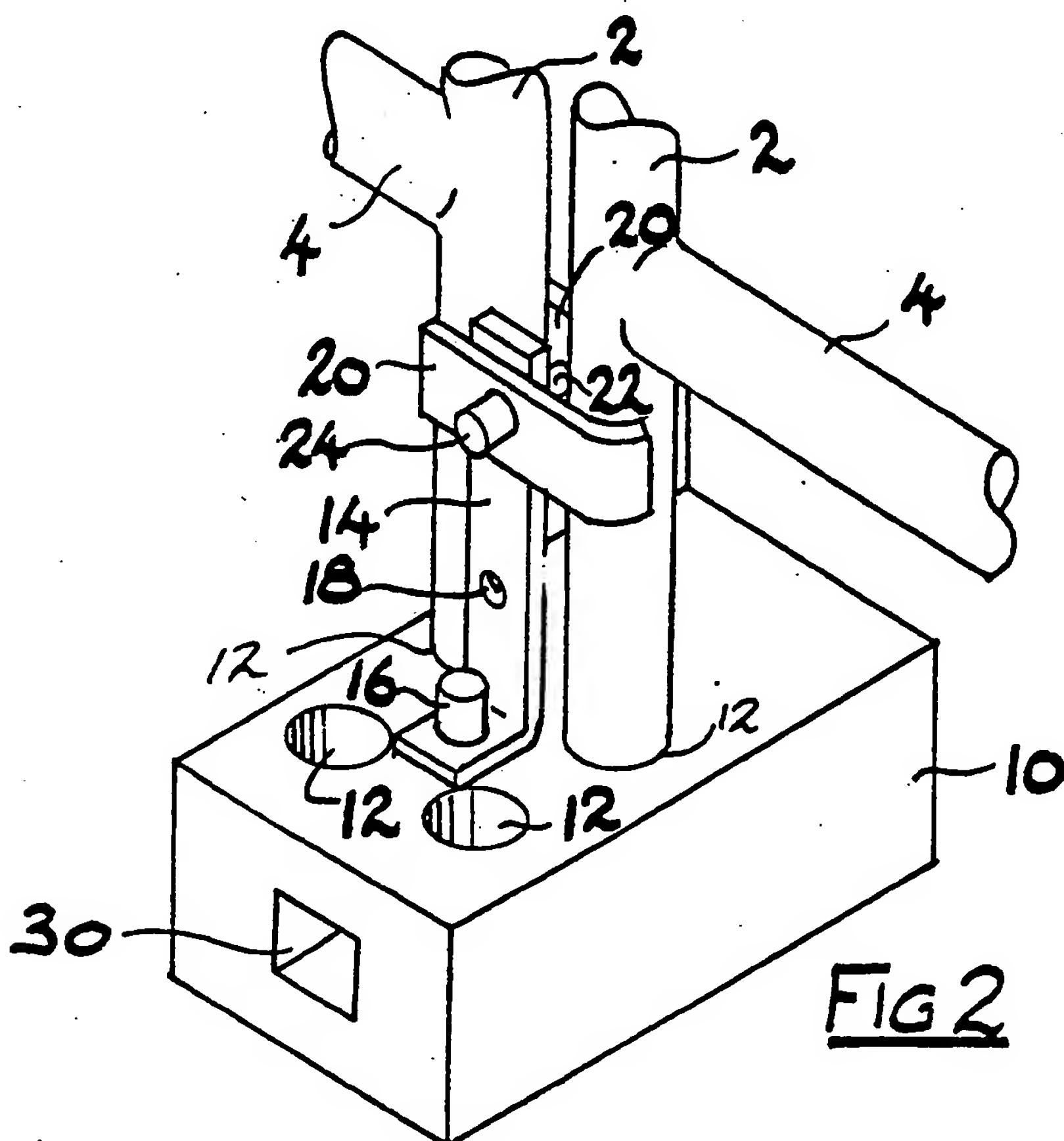
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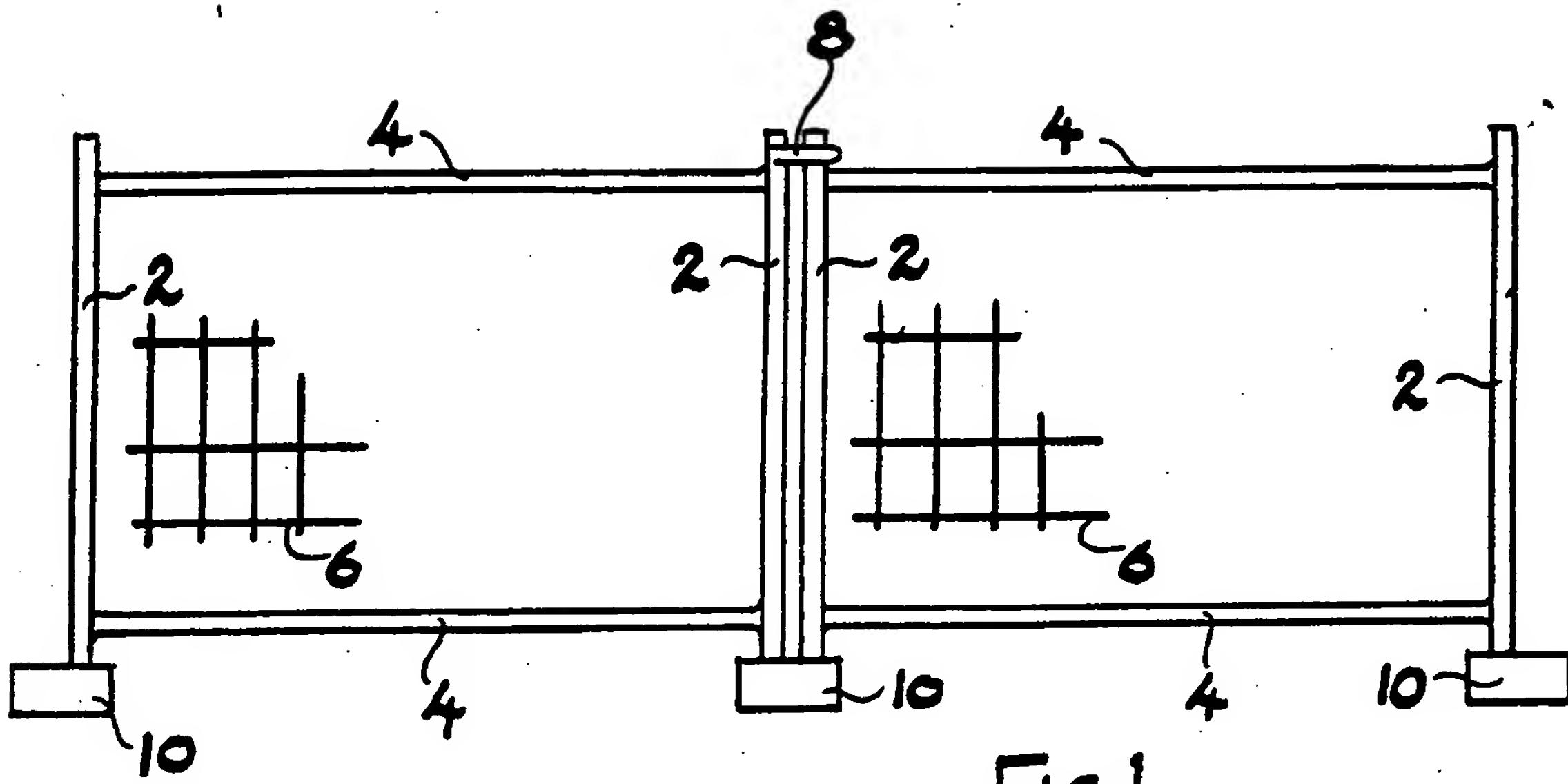
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### (54) Fencing

(57) Fence panels 2, 4 are received in holes 12 in bases 10 and secured to bracket 14 by a clamp 20 and bolt 22 and a nut 24 which is accessible from one side of the fence only.



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**FIG 1**

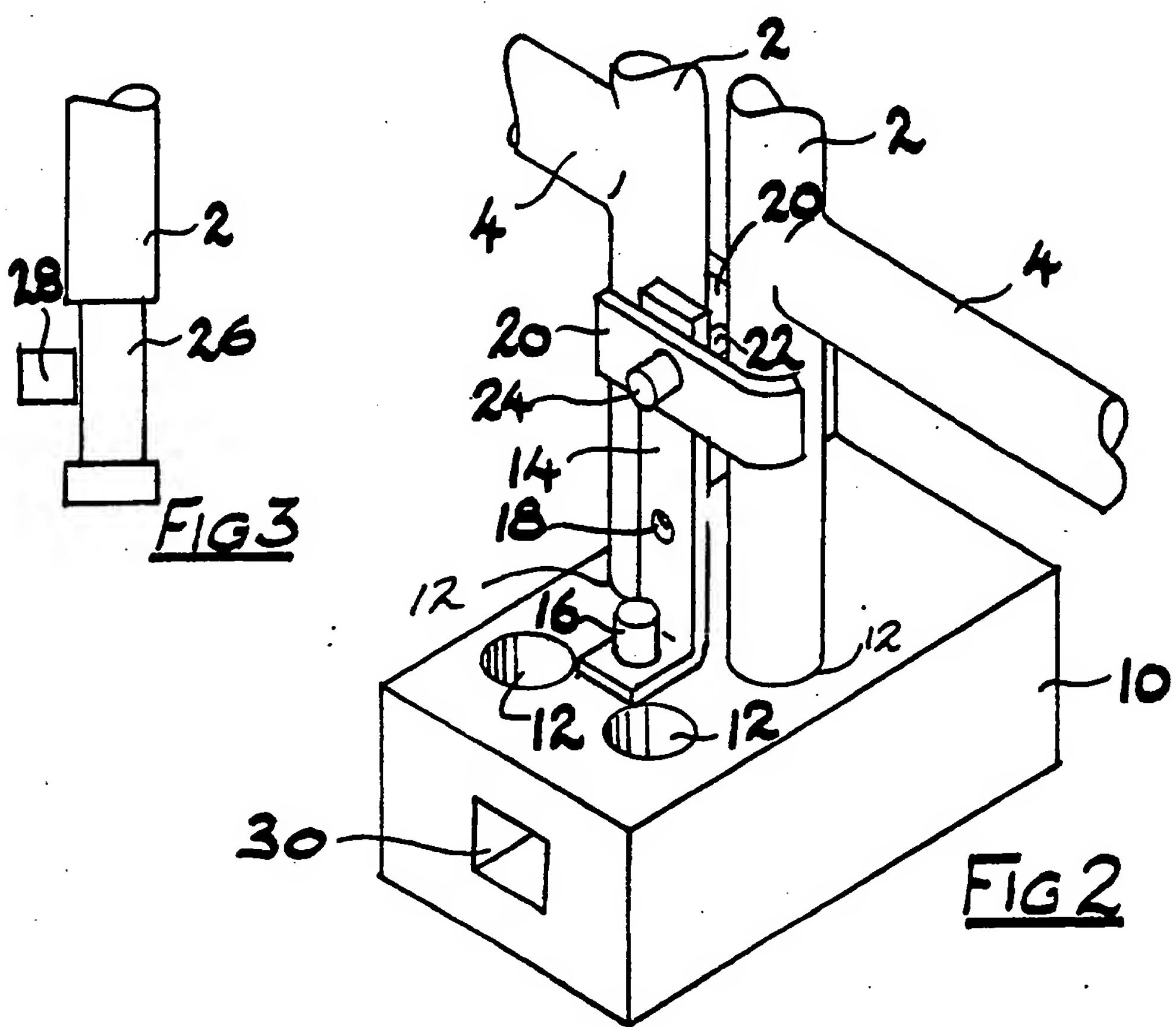


FIG 2

TEMPORARY FENCING

This invention relates to fencing of a kind normally considered temporary, although, in practice it could be used 5 as permanent fencing.

In order to fence off, say, building sites while building is in progress, it has been traditional to erect hording. A recent alternative, which is quicker to erect and often more durable is to erect temporary fencing. Generally this 10 consists of massive bases which are used to support interlinked fence panels. The panels, generally a tubular steel framework supporting a wire mesh or grid, are detachable from the bases for transport and storage.

In accordance with the invention, there is provided a 15 fencing system comprising fence panels which may be interlinked, detachable massive bases for operatively supporting the panels, and means removable only by access from inside or behind the fence, when erect, for preventing the panels being separated from the bases.

20 This has the considerable advantage that panels cannot be lifted away from the bases and crawled under. It also prevents a panel being lifted away from the base and tilted to increase the gap between it and the adjacent panel sufficiently to climb through.

25 The means for preventing the panels being separated from the bases preferably comprises a clamp for clamping to a panel or two adjacent panels and a bracket or strap attached to or for attachment to the base. Existing systems may be converted to this form relatively simply. The clamp 30 preferably comprises two generally J-shaped members and a screw and nut for tightening the members onto the panels. The nut is on the inside of the fencing. The clamp or strap is preferably screwed or bolted to the base.

The panels generally have posts at opposite ends which 35 extend into post-holes in the bases. The means for preventing the panels being separated from the bases may comprise cross-holes in the bases, communicating with the

post-holes, and detent means for insertion into the cross-holes to engage with or in a feature of the posts to prevent their removal from the post-holes. This system may be simpler to manufacture as opposed to convert after

5 manufacture. The feature may comprise a hole in which the detent means engages. Alternatively, each post may have a waisted portion at its bottom end, the waisted portion receiving the detent means projecting into the post-hole from the cross-hole.

10 Means for preventing removal may comprise a deep cup fitted over the nut or screw or bolt head.

One embodiment of the invention will now be described, by way of example, with reference to the accompanying drawings, 15 in which:

Figure 1 is a schematic elevation of a fencing system; Figure 2 is a detail of the fencing system showing a modification embodying the invention; and

Figure 3 is a detail of an alternative arrangement.

20 Referring to the drawings, two fencing panels are illustrated. Each comprises a tubular steel frame comprising upright posts at each end and cross members 4 at top and bottom. A wire mesh or grid schematically indicated at 6 is attached to the frame. The posts 2 extend beyond the cross-members 4 at both the top and bottom. At the top this enables a loop 8 on one post to receive the top of the post 4 of the adjacent panel thereby linking the panels. At the bottom, the posts are received by holes in massive concrete bases thereby supporting the panels.

25 30 The holes 12 can be seen in Figure 2. The holes are arranged in two sets of two. As can be seen the posts 4 are inserted in the adjacent holes of one of the sets as appropriate to the particular situation.

A wedge anchor (not shown) is fitted in a suitable hole

35 in the base and a bracket 14 is attached to the base using a hexagon headed screw into the wedge anchor. The head of the screw (not shown) is contained in a cup 16 through which the

screw extends and which prevents the screw being removed with normal tools. Obviously a C-spanner or a ring spanner cannot be used. The cup is also deep enough and close enough to the head of the screw to prevent the use of a 5 normal socket spanner. In an alternative the free end of the bracket is turned up to the same effect.

The bracket 14 has two holes 18 in its long leg (only one is visible in the drawings). Two J-shaped clamp members 20 are held together by a bolt eg a coach bolt 22 the head of 10 which is outside the fence and not visible in the drawings. The coach bolt 22 passes through the upper one of the holes 18 in the bracket 14. In other situations it might be appropriate to use the lower of the two holes 18. The clamp members 20 are tightened together by a nut on the coach bolt 15 22 which is also contained in a cup to make it more difficult to remove. Both of the nuts are accessible only from inside or behind the fence when that is erect, ie the interlinked panels are assembled in their bases. This makes removal of the nuts difficult or impossible from outside or 20 in front of the fence.

In an alternative the bracket may be replaced by a strap. Without some considerable difficulty it is not possible to lift the panels to separate the panels from the bases 10. The posts cannot be lifted out of their holes 12. Thus 25 because of the weight of the bases 10, it would be very difficult to lift the fence to crawl under. Further, it is not possible to separate two panels at the bottom and so climb through the gap, whereas that would be possible if the posts could be lifted out of the holes in the bases 10.

30 In an alternative arrangement the base 10 has a cross-hole 30 through the side. As illustrated one cross hole 30 communicates with all of the holes 12. In other arrangements two cross holes may be provided to communicate each with one set of two holes 12. The detent-means can 35 then be inserted through the cross hole once the post is in the hole 12. Thus, for example, if the post had a hole in it, the detent could be received by the hole which could be

elongate to accommodate different levels. In an arrangement illustrated in Figure 3, the bottom end of the post 2 has a waist 26 which receives the detent-means in the form of a square bar 28. Since the post is round the panel can be at 5 any angle to the base.

The cross hole 30 is blind, that is to say does not extend right through the base. Once the fence is erected, that is to say the panels are interlinked the posts are inserted in the holes 12, the detent means, eg bar 28, is 10 only accessible from inside or behind the fence. This makes removal of the detent difficult or impossible from outside or in front of the fence and yet facilitates assembly.

The grid or grill 6 should be sufficiently small near the means of undoing whatever means is used to hold the panels 15 and the bases together, to prevent a hand passing through in order to increase the difficulty of undoing it.

CLAIMS

1. A fencing system comprising fence panels which may be interlinked, detachable massive bases for operatively supporting the panels, and means removable only by access 5 from inside or behind the fence, when erect, for preventing the panels being separated from the bases.

2. A fencing system as claimed in claim 1, wherein the means for preventing the panels being separated from the bases comprises a clamp for clamping to a panel or two 10 adjacent panels and a bracket or strap attached to or for attachment to the base.

3. A fencing system as claimed in claim 1, wherein the clamp comprises two generally J-shaped members and a screw and nut for tightening the members onto the panels.

15 4. A fencing system as claimed in claim 2 or 3, wherein the clamp or strap is mechanically attached to the base.

5. A fencing system as claimed in claim 1, wherein the panels have posts at opposite ends which extend into post-holes in the bases, the means for preventing the panels 20 being separated from the bases comprising cross-holes in the bases, communicating with the post-holes, and detent means for insertion into the cross-holes to engage with or in a feature of the posts to prevent their removal from the post-holes.

25 6. A fencing system as claimed in claim 5, wherein the feature comprises a hole in which the detent means engages.

7. A fencing system as claimed in claim 5, in which each post has a waisted portion at its bottom end, the waisted portion receiving the detent means projecting into 30 the post-hole from the cross-hole.

8. A fencing system as claimed in any preceding claim, including means for preventing removal of any nuts, screws or bolts without destruction or special tools.

9. A fencing system as claimed in claim 8 wherein the 35 means for preventing removal comprise a deep cup fitted over the nut or screw or bolt head.

## Relevant Technical fields

(i) UK CI (Edition K )

K )

E1D (DDP, DPB); E1G (GLJ, GLM)

(ii) Int CI (Edition 5 )

5 )

E01F; E04H

## Search Examiner

H A REEVE

## Databases (see over)

(i) UK Patent Office

(ii)

## Date of Search

18 JULY 1991

## Documents considered relevant following a search in respect of claims

1-9

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
XP	GB A 2225038 (FENSOC) note bolt 25	1 at least
X	GB 1445843 (NORTH WESTERN ELECTRICITY BOARD) note pin 32	"
X	GB 581915 (WYRILL) note padlock 15	"
X	GB 573069 (GLAYSHER) note strap 6 and bolts 7	"
X	US 3877681 (HUMPHREY) see arrangements of bolts holding fence to base	"

Category	Identity of document and relevant passages	Relevant to claim

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